



Attorney Docket No. 17564-145

**REISSUE APPLICATION DECLARATION BY THE INVENTOR  
PURSUANT TO 37 C.F.R. §1.175**

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As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name

I believe I am an original, first and joint inventor of the subject matter which is described and claimed in U.S. Patent No. 5,891,212, granted April 6, 1999, and for which a reissue patent is sought on the invention entitled:

**APPARATUS AND METHOD FOR  
MAKING UNIFORMLY SIZED AND SHAPED SPHERES**

the specification of which:

was filed on April 6, 2001, as reissue application Serial No. 09/827,605, bearing Attorney Docket No. 17564-145, and was amended by preliminary amendment on April 6, 2001.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability as defined in 37 C.F.R. §1.56.

I verily believe the original patent to be wholly or partly inoperative or invalid by reason of the patentee claiming less than he had the right to claim in the patent.

At least one error upon which reissue is based is described below.

The reissue application is a broadening reissue application. Claims 1 and 16 have been amended to more broadly recite the manner in which the stream of material is broken into spheres and to remove a step of passing of the spheres through an electric field. The amendments merely remove unnecessary limitations from claims 1 and 16. Support for these amendments to claims 1 and 16 is provided in the original disclosure.

Reissue Application Declaration  
U.S. Patent No. 5,891,212  
Attorney Docket No. 17564-145

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected therewith:

Kevin Ainsworth, Registration No. 39,586  
Ingrid Beattie, Registration No. 42,306  
William Belanger, Registration No. 40,509  
Duane Blake, Registration No. 47,279  
Naomi Biswas, Registration No. 38,384  
Yong Choi, Registration No. 43,324  
David F. Crosby, Registration No. 36,400  
Brian Dauphin, Registration No. 40,983  
Brett N. Dorny, Registration No. 35,860  
Marianne Downing Reg. No. 42,870  
Ivor R. Elrifi, Registration No. 39,529  
Heidi A. Erlacher Reg. No. P-45,409  
Christina Gadiano, Registration No. 37,628  
Richard Gervase, Registration No. P-46,725  
John A. Harre, Registration No. 37,345  
Brian P. Hopkins, Registration No. 42,669  
Shane Hunter, Registration No. 41,858  
David E. Johnson, Registration No. 41,874  
Kris Kalidindi, Registration No. 41,461  
Christina Karnakis Reg. No. P-45,899  
Robert Klauzinski, Registration No. 42,742  
Kristin Konzak, Registration No. 44,848  
Cynthia Kozakiewicz, Registration No. 42,764  
Barry J. Marenberg Reg. No. 40,715  
William A. Marino, Registration No. 44,219  
A. Jason Mirabito, Registration No. 28,161  
Michel Morency, Limited Recognition  
Carol H. Peters, Registration No. 45,010  
David Poirier, Registration No. 43,007  
Michael Renaud Reg. No. 44,299  
Brian Rosenbloom, Registration No. 41,276  
Robert Sayre, Registration No. 42,124  
Thomas M. Sullivan, Registration No. 39,392  
Janine Susan, Registration No. 46,119  
Howard Susser, Registration No. 33,556

Reissue Application Declaration  
U.S. Patent No. 5,891,212  
Attorney Docket No. 17564-145

Please address all telephone calls to Thomas M. Sullivan at telephone number 617/348-1661, and all correspondence to:

Thomas M. Sullivan  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, Massachusetts 02111  
Fax: 617/542-2241

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

---

Inventor's Signature Date  
Full Name of Inventor: Jie Tang  
Citizenship:  
Residence:  
Post Office Address:

*Gary B. Hess* 10-28-02  

---

Inventor's Signature Date  
Full Name of Inventor: Gary B. Hess  
Citizenship: *U.S.A*  
Residence: *11122 Stephenson RD. Onsted MI 49265*  
Post Office Address:

---

Inventor's Signature Date  
Full Name of Inventor: Mark D. Muszynski  
Citizenship:  
Residence:  
Post Office Address:

Reissue Application Declaration  
U.S. Patent No. 5,891,212  
Attorney Docket No. 17564-145

Thomas Goehring  
Inventor's Signature

10-23-2002

Date

Full Name of Inventor: Thomas S. Goehring

Citizenship: *United States of America*

Residence: *6307 County Farm Road, Jackson, MI 49201*

Post Office Address:



Express Mail Label No.: ET176342250US  
Date of Deposit: December 11, 2002

Attorney Docket No. 17564-145

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First-Named Inventor: Tang, Jie et al.  
Assignee: Alpha Metals (Korea) Ltd.  
For: APPARATUS AND METHOD FOR MAKING  
UNIFORMLY SIZED AND SHAPED SPHERES  
Reissue Serial No.: 09/827,605  
Filed: April 6, 2001  
Original Patent No.: 5,891,212  
Original Issue Date: April 6, 1999

Box RESPONSE  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**OFFER BY ASSIGNEE TO SURRENDER  
ORIGINAL PATENT UNDER 37 C.F.R. §1.178(a)**

Sir:

The Assignee hereby offers to surrender the original patent identified above as the original patent grant or, if the original patent grant is lost or inaccessible, by a statement to that effect. The Assignee will surrender the original patent on or before the allowance of this application for reissue of the original patent. The undersigned is a person authorized to act on behalf of the Assignee.

Respectfully submitted,

ALPHA METALS (KOREA) LTD.

Date: 10/24/02

Name: Mark A. Dingley  
Title: Secretary

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Original Issue Date: April 6, 1999

Box RESPONSE

Assistant Commissioner for Patents  
Washington, D.C. 20231

**CONSENT OF ASSIGNEE FOR APPLICATION FOR  
REISSUE PATENT UNDER 37 C.F.R.§1.172**

Sir:

The Assignee of an undivided interest in the original patent identified above is Alpha Metals (Korea) Ltd. The Assignee consents to the above-identified application for a reissue patent. A statement under 37 C.F.R.§3.73(b) to establish ownership of the original patent is filed herewith. The undersigned is a person authorized to act on behalf of the Assignee.

Respectfully submitted,

ALPHA METALS (KOREA) LTD.

Date: 16/6/02

Name: Mark A. Dingley  
Title: Secretary

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Date of Deposit: December 11, 2002

Attorney Docket No. 17564-145

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First-Named Inventor: Tang, Jie et al.  
Assignee: Alpha Metals (Korea) Ltd.  
For: APPARATUS AND METHOD FOR MAKING  
UNIFORMLY SIZED AND SHAPED SPHERES  
Reissue Serial No.: 09/827,605  
Filed: April 6, 2001  
Original Patent No.: 5,891,212  
Original Issue Date: April 6, 1999

Box RESPONSE

Assistant Commissioner for Patents  
Washington, D.C. 20231

**ESTABLISHING RIGHT OF ASSIGNEE TO CONSENT  
TO APPLICATION FOR REISSUE PATENT  
UNDER 37 C.F.R. §3.73(b)**

Sir:

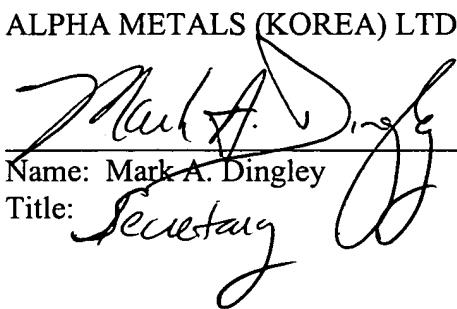
The Assignee of the original patent identified above, Alpha Metals (Korea) Ltd., provides its consent to file the above-identified reissue application. To establish ownership of the original patent, enclosed herewith are copies of the assignment documentation as filed with the Assignment Branch of the U.S. Patent and Trademark Office for recordation of the Assignee's ownership of the original patent. The assignment documentation establishes the transfer of ownership of the original patent from the conveying party, Fry's Metals, Inc. d/b/a Cookson Semiconductor Packaging Materials to the Assignee, Alpha Metals (Korea) Ltd. The assignment documentation was recorded on April 22, 2002, at Reel/Frame No. 012865/0864

The undersigned is a person authorized to act on behalf of the Assignee.

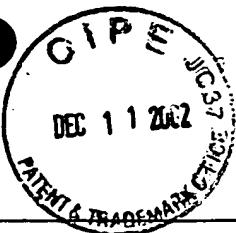
Respectfully submitted,  
ALPHA METALS (KOREA) LTD.

Name: Mark A. Dingley  
Title: Secretary

Date: 10/24/02



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Date of Deposit: December 11, 2002

**COPY**

JULY 12, 2002

MINTZ, LEVIN, COHN ET AL.  
CAROL H. PETERS  
ONE FINANCIAL CENTER  
BOSTON, MA 02111

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Under Secretary of Commerce For Intellectual Property and  
Director of the United States Patent and Trademark Office  
Washington, DC 20231  
[www.uspto.gov](http://www.uspto.gov)

JUL 18 2002



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UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/22/2002

REEL/FRAME: 012865/0864

NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

FRY'S METALS, INC.

DOC DATE: 07/30/2001

ASSIGNEE:

ALPHA METALS (KOREA) LTC.  
IRA 310, 1247-9 JUNGWANG-DONG  
SILWA INDUSTRIAL COMPLEX, SHIHING  
CITY  
KYUNGGI-DO, 429-450  
REPUBLIC OF  
KOREA

SERIAL NUMBER: 08931295  
PATENT NUMBER: 5891212

FILING DATE: 09/16/1997  
ISSUE DATE: 04/06/1999

SERIAL NUMBER: 09212555  
PATENT NUMBER: 6083454

FILING DATE: 12/16/1998  
ISSUE DATE: 07/04/2000

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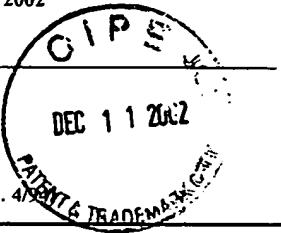
012865/0864 PAGE 2

PEARLENE FOSTER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

Express Mail Label No. ET176335608US  
Date of Deposit: April 22 2002

05-13-2002

Attorney Docket No. 17564-143



FORM PTO-1595  
(Rev. 6-93)  
OMB No. 0651-0011 (exp. 4/30/03)

102087288

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): 4-22-02

Fry's Metals, Inc.  
d/b/a Cookson Semiconductor Packaging Materials

Additional name(s) of conveying party(ies) attached?  Yes  No

3. Nature of conveyance:

Assignment  Merger  
 Security Agreement  Change of Name  
 Other \_\_\_\_\_

Execution Date: July 30, 2001

2. Name and address of receiving party(ies)

Name: Alpha Metals (Korea) Ltd.

Internal Address:

Street Address:  
IRA 310  
Silwa Industrial Complex  
1247-9 Jungwang-Dong  
Sihung City  
Kyunggi-do  
429,450 Korea

Additional name(s) & address(es) attached?  Yes  No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s):

B. Patent No(s):

5,891,212  
6,083,454

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence  
Concerning document should be mailed:

Name: Carol H. Peters  
Address: MINTZ, LEVIN, COHN, FERRIS  
GLOVSKY and POPEO, P.C.  
One Financial Center  
Boston, MA 02111

6. Total number of patents involved: [2]

7. Total fee (37 CFR 3.41) \$80.00

Enclosed

The Commissioner is authorized to charge Deposit Account  
No: 50-0311, Reference No. 17564-143.

DO NOT USE THIS SPACE

9. Statement and signature

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Carol H. Peters, Reg. No. 45,010

April 22, 2002

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and document: [5]

05/10/2002 LUMLLELLER 0000006 5891212

D1 FC:581

80.00 CP

Mail documents to be recorded with required cover sheet information to:

BOX ASSIGNMENT  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

TRA 1659289 v1

**ASSIGNMENT OF PATENTS AND PATENT APPLICATIONS**

**WHEREAS**, Fry's Metals, Inc. d/b/a Cookson Semiconductor Packaging Materials), a corporation organized under the laws of the State of Delaware, U.S.A., having principal offices at 600 Route 440, Jersey City, New Jersey 07304 (hereinafter "Assignor"), is the owner of Letters Patents, Patent Applications, Inventions and Trade Secrets, which are specifically identified and listed in Schedule A, Schedule B and Schedule C, attached hereto, incorporated herein and made a part hereof.

**WHEREAS**, Alpha Metals (Korea) Ltd., a corporation organized under the laws of the Country of Korea, having offices at IRA 310, Silwa Industrial Complex, 1247-9 Jungwang-Dong, Sihung City, Kyunggi-do, 429,450 Korea (hereinafter ("Assignee"), is desirous of acquiring all of Assignor's right, title and interest in the Patents, Patent Applications, Inventions and Trade Secrets specifically identified and listed in Schedule A, Schedule B and Schedule C including it right to sue for and collect for past infringement thereof;

**NOW, THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which by Assignor is hereby acknowledged, and intending to be legally bound hereby, the Assignor does hereby sell, assign, transfer and set over unto the Assignee its entire right, title and interest in and to, respectively, the Patents identified in Schedule A hereto, and any and all reissues and extensions thereof, including Assignor's right to sue for and collect damages and other recoveries for past infringement thereof; and the Patent Applications identified in Schedule B hereto, and any and all divisions, continuations and continuances-in-part thereof; the same to be held and enjoyed by the Assignee successors and assigns, as fully as the same would have been held and enjoyed by the Assignor had this Assignment not been made; and the Inventions and Trade Secrets identified in Schedule C hereto.

And for the consideration aforesaid, Assignor agrees that it will, upon request, execute and deliver to Assignee any and all additional papers and generally do all other and further lawful acts deemed necessary by said Assignee to carry out the terms of this Assignment.

EXECUTED this 31<sup>st</sup> day of July, 2001.

FRY'S METALS, INC.

By Peter A. Palmer

Title: VP Global Marketing

STATE OF New Jersey  
COUNTY OF Hudson

The foregoing instrument was acknowledged before me in the City of Jersey City, this 31<sup>st</sup> day of July, 2001, by Peter A. Palmer (name), the VP Global Marketing (title) and \_\_\_\_\_ (name), the \_\_\_\_\_ (title) of Fry's Metals, Inc., a Delaware, USA Corporation on behalf of the corporation.

(seal)

Jean C. De Rosa  
Notary Public. JEAN C. DeROSA  
NOTARY PUBLIC OF NEW JERSEY  
Commission Expires 1/13/2002

ALPHA METALS (KOREA), LTD.

By Richard Ertmann

Title: Executive Vice President

STATE OF New Jersey  
COUNTY OF Hudson

The foregoing instrument was acknowledged before me in the City of Jersey City, this 31<sup>st</sup> day of July, 2001, by Richard Ertmann (name), the Executive VP (title) and \_\_\_\_\_ (name), the \_\_\_\_\_ (title) of Alpha Metals (Korea), Ltd., a Korean Corporation on behalf of the corporation.

(seal)

Jean C. De Rosa  
Notary Public. JEAN C. DeROSA  
NOTARY PUBLIC OF NEW JERSEY  
Commission Expires 1/13/2002

**SCHEDULE A - PATENTS**

<u>PATENT NO.</u>	<u>ISSUE DATE</u>	<u>COUNTRY</u>	<u>SERIAL NO.</u>
US 5,891,212	04/06/99	U.S.A.	08/931,295
US 6,083,454	07/04/00	U.S.A.	09/212,555
TW 108208	11/01/99	Taiwan	87111398

**SCHEDULE B – PATENTS APPLICATIONS**

<u>COUNTRY</u>	<u>APPLICATION NO.</u>	<u>FILING DATE</u>	<u>PUBLICATION NO.</u>	<u>PUBLICATION DATE</u>
EPC	98925258.0	06/05/00	0996521	05/03/00
PCT	PCT/US98/11588	06/05/98		
China	98807037.5	06/05/98		
India	1090CAL98	07/14/98		
Japan	HEI11507149	06/05/98		
India	1090CAL98	07/14/98	Duplicate	
S. Korea	10-2000-7000390	06/05/98		
Singapore	9905518-8	06/05/98		